

Serial No. 10/628,468

AMENDMENTS TO THE CLAIMS

The text of all pending claims, including withdrawn claims, is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~strikethrough~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

Please AMEND claim 36 to read as follows:

1. (Previously Presented) A method of recording data on an optical storage medium in a certain recording format, the method comprising:

selecting a disc recording format from a plurality of disc recording formats to record the data on the optical storage medium independent of a type of the optical storage medium;

recording the data on the optical storage medium in the selected disc recording format; and

adding information regarding the selected one of the plurality of disc recording formats on the optical storage medium.

2. (Previously Presented) The method of claim 1, wherein the selected disc recording format to record the data is selected by a user.

3. (Previously Presented) The method of claim 1, wherein the disc recording format information is recorded in an area adjacent an area in which the data is recorded.

4. (Previously Presented) A method of recording data on an optical storage medium in a plurality of disc recording formats, the method comprising:

selecting separate ones of the plurality of disc recording formats for each of the corresponding data to record each of the data on the optical storage medium;

recording each of the data on the optical storage medium in the corresponding selected disc recording formats; and

adding information regarding the selected disc recording format on the optical storage medium whenever each data is recorded in the corresponding one of the selected disc recording formats.

5. (Previously Presented) The method of claim 4, wherein the selected disc

Serial No. 10/628,468

recording format corresponding to each of the data is selected by a user.

6. (Previously Presented) The method of claim 4, wherein the disc recording format information is recorded in an area adjacent each area in which the data is recorded.

7. (Original) The method of claim 4, further comprising, after completion of the data recording, preparing and recording file systems.

8. (Original) The method of claim 7, wherein the file system is prepared and recorded every time new data is recorded on the optical storage medium.

9. (Original) The method of claim 7, wherein the file system is prepared and recorded after completing recording of the data in an entire data area of the optical storage medium.

10. (Previously Presented) The method of claim 8, wherein:
the file system comprises directories for the respective disc recording formats,
each of the directories comprises information regarding attributes of each of the data in the corresponding disc recording format, and
the attribute information includes a data file name, disc recording format information, and a starting address.

11. (Previously Presented) A method of reproducing data from an optical storage medium in which data is recorded using a method of claim 1, the method comprising:
reading disc recording format information regarding desired data from an information area of the optical storage medium distinguished from a plurality of disc recording format information; and
reproducing the desired data based on the read disc recording format information.

12. (Previously Presented) A method of reproducing data from an optical storage medium in which data is recorded using a method of claim 7, the method comprising:
reading data for a file system from the optical storage medium;
reading a disc recording format information distinguished from a plurality of disc recording format information and a starting address of corresponding desired data from the file

Serial No. 10/628,468

system; and

reading the desired data from the corresponding starting address and decoding the desired data based on the corresponding disc recording format information.

13-17. (Cancelled)

18. (Previously Presented) An optical storage medium comprising:
an area on which a plurality of data are recorded in various corresponding disc recording formats; and
a predetermined area in which file system information is recorded,
wherein the file system information includes information regarding the various disc recording formats and starting addresses of each of the data.

19. (Previously Presented) The method of claim 9, wherein:
the file system comprises directories for the respective disc recording formats,
each of the directories comprises information regarding attributes of each of the data in the corresponding disc recording format, and
the attribute information includes a data file name, disc recording format information, and a starting address.

20. (Previously Presented) A method of reproducing data from an optical storage medium in which data is recorded using a method of claim 2, the method comprising:
reading disc recording format information regarding desired data from an information area of the optical storage medium distinguished from a plurality of disc recording format information; and
reproducing the desired data based on the read disc recording format information.

21. (Previously Presented) A method of reproducing data from an optical storage medium in which data is recorded using a method of claim 3, the method comprising:
reading disc recording format information regarding desired data from an information area of the optical storage medium distinguished from a plurality of disc recording format information; and
reproducing the desired data based on the read disc recording format information.

Serial No. 10/628,468

22. (Previously Presented) A method of reproducing data from an optical storage medium in which data is recorded using a method of claim 4, the method comprising:

reading disc recording format information regarding desired data from an information area of the optical storage medium distinguished from a plurality of disc recording format information; and

reproducing the desired data based on the read disc recording format information.

23. (Previously Presented) A method of reproducing data from an optical storage medium in which data is recorded using a method of claim 5, the method comprising:

reading disc recording format information regarding desired data from an information area of the optical storage medium distinguished from a plurality of disc recording format information; and

reproducing the desired data based on the read disc recording format information.

24. (Previously Presented) A method of reproducing data from an optical storage medium in which data is recorded using a method of claim 6, the method comprising:

reading disc recording format information regarding desired data from an information area of the optical storage medium distinguished from a plurality of disc recording format information; and

reproducing the desired data based on the read disc recording format information.

25. (Previously Presented) A method of reproducing data from an optical storage medium in which data is recorded using a method of claim 8, the method comprising:

reading data for a file system from the optical storage medium;

reading a disc recording format information distinguished from a plurality of disc recording format information and a starting address of corresponding desired data from the file system; and

reading the desired data from the corresponding starting address and decoding the desired data based on the corresponding disc recording format information.

26. (Previously Presented) A method of reproducing data from an optical storage medium in which data is recorded using a method of claim 9, the method comprising:

reading data for a file system from the optical storage medium;

reading a disc recording format information distinguished from a plurality of disc

Serial No. 10/628,468

recording format information and a starting address of corresponding desired data from the file system; and

reading the desired data from the corresponding starting address and decoding the desired data based on the corresponding disc recording format information.

27. (Cancelled)

28. (Previously Presented) An optical apparatus that transfers data with respect to an optical storage medium, the apparatus comprising:

a pickup that optically transfers encoded data with respect to the optical storage medium;
a data converter which converts a received one of encoded data and data into the other one of the encoded data and the data according to a determined one of a plurality of different recording formats; and

a controller which determines a disc recording format selected from a plurality of different disc recording formats and which corresponds to a selected one of the data, controls the data converter to convert the received one of the encoded data and the data according to the determined one of the plurality of different disc recording formats, and controls the pickup to optically transfer the encoded data,

wherein the controller controls the pickup to transfer disc recording format information regarding the determined disc recording format with respect to a first region of the optical storage medium, and controls the pickup to transfer the selected data with respect to a second region of the optical storage medium other than the first region, and

the first region includes another disc recording format information regarding another one of the plurality of different disc recording formats, and the second region has other data encoded in the another one of the plurality of different disc recording formats.

29. (Cancelled)

30. (Previously Presented) The optical apparatus of claim 28, wherein the first region has a common border with the second region.

31. (Cancelled)

32. (Previously Presented) An optical apparatus that transfers data with respect to an

Serial No. 10/628,468

optical storage medium, the apparatus comprising:

a pickup that optically transfers encoded data with respect to the optical storage medium;

a data converter which converts a received one of encoded data and data into the other one of the encoded data and the data according to a determined one of a plurality of different recording formats; and

a controller which determines a disc recording format selected from a plurality of different disc recording formats and which corresponds to a selected one of the data, controls the data converter to convert the received one of the encoded data and the data according to the determined one of the plurality of different disc recording formats, and controls the pickup to optically transfer the encoded data,

wherein the controller further determines another disc recording format from the plurality of different disc recording formats and which corresponds to a selected another one of the data from the optical storage medium, and controls the converter to convert the received one of the selected another data and the encoded data according to the determined another one of the plurality of different disc recording formats.

33. (Previously Presented) The optical apparatus of claim 32, wherein the controller controls the pickup to transfer the disc recording format information with respect to a first region of the optical storage medium, controls the pickup to transfer the selected data with respect to a second region of the optical storage medium other than the first region, controls the pickup to transfer another disc recording format information regarding the determined another disc recording format with respect to a third region of the optical storage medium, and controls the pickup to transfer the selected another data with respect to a fourth region of the optical storage medium other than the third region.

34. (Original) The optical apparatus of claim 33, wherein the first region has a common border with the second region, and the third region has a common border with the fourth region.

35. (Original) The optical apparatus of claim 33, wherein the first region includes the third region, and the second region includes the fourth region.

36. (Currently Amended) An optical apparatus that transfers data with respect to an optical storage medium, the apparatus comprising:

Serial No. 10/628,468

~~a pickup that optically transfers encoded data with respect to the optical storage medium; a data converter which converts a received one of encoded data and data into the other one of the encoded data and the data according to a determined one of a plurality of different recording formats; and~~

~~a controller which determines a disc recording format selected from a plurality of different disc recording formats and which corresponds to a selected one of the data, controls the data converter to convert the received one of the encoded data and the data according to the determined one of the plurality of different disc recording formats, and controls the pickup to optically transfer the encoded data.~~ The optical apparatus of claim 28, wherein the plurality of different disc recording formats includes disc recording formats for at least two of digital versatile disk (DVD) data, MP3 data, video CD (VCD) data, MPEG4 data, video recording (VR) data, MPEG2 data, audio compression 3 (AC3) data, and linear pulse code modulation (LPCM) data.

37. (Previously Presented) The optical apparatus of claim 28, wherein:

the data converter comprises a decoder which decodes the encoded data read from the optical storage medium into the data according to the determined one of the plurality of different disc recording formats; and

the controller reads disc recording format information corresponding to the selected one of the data from the optical storage medium to determine the one the plurality of different disc recording formats, and controls the decoder to decode the encoded data to provide the selected data in the determined one of the plurality of different disc recording formats.

38. (Previously Presented) The optical apparatus of claim 37, wherein the controller reads a file system from the optical storage medium in which the determined disc recording format information is stored in order to read the recording format information.

39. (Previously Presented) The optical apparatus of claim 38, wherein the file system further comprises another disc recording format information corresponding to another one of the data encoded using another one of the plurality of different disc recording formats.

40. (Previously Presented) The optical apparatus of claim 28, wherein:

the data converter comprises an encoder which encodes the data into the encoded data to be written to the optical storage medium according to the determined one of the plurality of different disc recording formats; and

Serial No. 10/628,468

the controller controls the encoder to encode the selected one of the data in the determined one of the plurality of different disc recording formats, and controls the pickup to record disc recording format information regarding the determined disc recording format and the encoded data on the optical storage medium.

41. (Previously Presented) The optical apparatus of claim 40, further comprising a user interface through which a command is received to determine the one of the plurality of different disc recording formats for use in encoding the selected one of the data.

42. (Previously Presented) The optical apparatus of claim 40, wherein the controller further prepares a file system in which the determined disc recording format information is stored and controls the pickup to record the prepared file system.

43. (Previously Presented) The optical apparatus of claim 42, wherein the file system further comprises another disc recording format information corresponding to another one of the data encoded using another one of the plurality of different disc recording formats.

44-46. (Cancelled)

47. (Previously Presented) A computer readable medium encoded with processing instructions for implementing a method of recording data on an optical storage medium in a disc recording format performed by a computer, the method comprising:

selecting a disc recording format from a plurality of disc recording formats to record the data on the optical storage medium;

recording the data on the optical storage medium in the selected disc recording format;

adding disc recording format information regarding the selected one of the plurality of disc recording formats on the optical storage medium,

selecting another one of the plurality of disc recording formats for additional data to be recorded on the optical storage medium;

recording the additional data on the optical storage medium in the corresponding another selected disc recording format; and

adding additional disc recording format information regarding the another selected disc recording format on the optical storage medium.

Serial No. 10/628,468

48. (Previously Presented) The computer readable medium of claim 47, wherein the method further comprises, after the data and the additional data area recorded, preparing and recording on the optical storage medium a file system including the disc recording format information and the additional disc recording format information.

49. (Previously Presented) A computer readable medium encoded with processing instructions for implementing a method of reproducing data from an optical storage medium performed by a computer, the method comprising:

reading disc recording format information corresponding to selected data from an information area of the optical storage medium distinguished from a plurality of disc recording format information corresponding, respectively, to unselected data; and

reproducing the selected data based on the read disc recording format information.

50. (Previously Presented) The computer readable medium of claim 49, wherein: the reading the disc recording format information comprises:

reading a file system from the optical storage medium, the file system having files for a plurality of different disc recording information for corresponding different disc recording formats, and

reading the disc recording format information distinguished from the plurality of disc recording format information and a starting address corresponding to the selected data from the file system; and

the reproducing the selected data comprises reading the selected data from the corresponding starting address and decoding the selected data based on the corresponding disc recording format information.

51. (Previously Presented) A method of transferring data with respect to an optical storage medium comprising:

converting a received one of data and encoded data to the other one of the data and the encoded data using a first disc recording format; and

transferring the encoded data with respect to the optical storage medium,

wherein the first disc recording format is independent of a type of the optical storage medium on which the encoded data is recorded, and

the optical storage medium is of the type having a second disc recording format not compatible with the first disc recording format.

Serial No. 10/628,468

52. (Cancelled)

53. (Previously Presented) The method of claim 51, wherein:
the converting the received one of the data and the encoded data comprises encoding
the data in the first disc recording format, and
the transferring the encoded data comprises recording the encoded data on the optical
storage medium.

54. (Previously Presented) The method of claim 51, wherein:
the converting the received one of the data and the encoded data comprises decoding
the encoded data from the first disc recording format, and
the transferring the encoded data comprises reading the encoded data from the optical
storage medium.